

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS: T.L. Barkley et al : GROUP ART UNIT:  
SERIAL NO: 09/863,795 :  
FILING DATE: May 23, 2001 : EXAMINER:  
TITLE: DETONATING CORD AND METHODS :  
OF MAKING AND USING THE SAME : ATTY DKT: P-1659-1

**CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)**

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

I hereby certify that the attached correspondence comprising:

- 1) Information Disclosure Statement with five references
- 2) Letter Accompanying Information Disclosure Statement
- 3) Post-paid receipt card

is being deposited with the United States Postal Service with sufficient first class postage in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date indicated below.

Date: July 11, 2001

Constance M. Pursell

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**LETTER ACCOMPANYING  
INFORMATION DISCLOSURE STATEMENT  
SUBMITTED PURSUANT TO 37 CFR 1.97(b)**

Commissioner for Patents  
Washington, DC 20231

July 11, 2001

Dear Sir:

Pursuant to 37 CFR 1.97(b), the Applicant(s) herewith disclose(s) for consideration in the above-captioned patent application the documents listed on the enclosed form PTO-1449, copies of which documents are enclosed therewith.

The enclosed Statement is being submitted within three months of the filing date of the above-captioned application so the items submitted therewith should therefore be considered without necessity of a certification, petition or fee.

The filing of the enclosed Statement shall not be construed: as a representation that a search has been made (37 CFR 1.97(g)), nor as an admission that the information cited is, or is considered to be, material to patentability, nor as a representation that no other information material to patentability exists, nor as an admission that the information cited is entitled to prior art status relative to the above-captioned application, nor as an admission against interest in any manner.

The use of glass or resin microspheres or microballoons in emulsion explosives is well known in the art. Emulsion explosives generally comprise a continuous organic phase and a discontinuous oxidizer phase, the most common form of which is a hydrocarbon such as diesel oil containing ammonium nitrate and an emulsifier, to provide the emulsion explosive generally referred to as ANFO (ammonium nitrate-fuel oil). Enclosed U.S. Patent

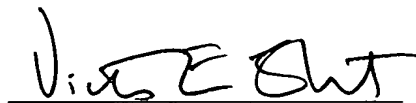
5,859,264, at column 2, lines 59-61, discloses the use of glass or resin microspheres in emulsion explosives as a sensitizing agent.

U.S. Patent 6,200,398, at column 24, line 47 to column 25, line 35, discusses the use of closed-cell, void-containing materials such as glass or phenol formaldehyde microbubbles or microspheres as sensitizing agents in emulsion explosives.

Similarly, U.S. Patent 6,165,297, at column 2, lines 63-67, discloses the use of closed-cell microballoons among several disclosed sensitizing agents for emulsion explosives.

U.S. Patent 4,757,863 discloses an elongated tube containing a combustible material and means for igniting the material to achieve deflagration that progresses along the length of the tube and generates an outwardly directed pressure. Restriction means, such as a plurality of spaced-apart high-strength steel restrictor sleeves 50-55 (see Figure 1) are crimped about the exterior of the flexible tubes, and the tubes are placed at intervals, e.g., between 2.5 and 21 feet. As described starting at column 5, line 23, the spaced-apart high-strength sleeves restrict the outwardly directed pressure engendered by the deflagrating combustible material to provide a series of spaced-apart (both physically and chronologically) pressure pulses along the length of the tube. (See column 5, lines 54-58.)

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Victor E. Libert", written over a horizontal line.

Victor E. Libert

Registration No. 24,224

Attorney for Applicants

Libert & Associates  
3 Mill Pond Lane  
P.O. Box 538  
Simsbury, CT 06070-0538

Telephone: (860) 651-9321

Facsimile: (860) 651-5735